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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* Kelly K. Houston,  
Patent Owner and Appellant

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Appeal 2017–006142  
Reexamination Control 90/013,530  
Patent 8,926,792 B1  
Technology Center 3900

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Before RICHARD M. LEBOVITZ, JEFFREY B. ROBERTSON, and  
RAE LYNN P. GUEST, *Administrative Patent Judges*.

ROBERTSON, *Administrative Patent Judge*.

DECISION ON APPEAL

Kelly K. Houston (“Appellant”), the owner of the patent under reexamination (hereinafter the “’792 Patent”), appeals under 35 U.S.C. §§ 134(b) and 306 from a final rejection of claims 1–19 (Appeal Brief filed August 24, 2016, hereinafter “App. Br.,” at 7; Final Office Action hereinafter “Final Act.,” mailed February 25, 2016). We have jurisdiction under 35 U.S.C. §§ 134(b) and 306.

We AFFIRM-IN-PART.

#### STATEMENT OF THE CASE

This reexamination proceeding arose from a third-party request for *ex parte* reexamination filed by C.W. Machine Worx, Ltd. (Request for *Ex Parte* Reexamination filed July 7, 2015).

The ’792 Patent states that the invention relates to onsite systems and processes for disseminating and disposing of leachate from landfills and other wastewaters. (Col. 1, ll. 13–15.)

Claims 1 and 8 on appeal read as follows:

1. A method of disseminating and disposing of wastewater having suspended solids:

directing the wastewater to an integrated and mobile aerosolization system (IMAS) including a conduit;

driving a turbine associated with the IMAS and generating a system of air that moves through the conduit of the IMAS;

pumping the wastewater under pressure to a series of nozzles associated with the IMAS and aerosolizing the wastewater and suspended solids directed from the nozzles into

the system of air passing through the IMAS to form an air-wastewater mixture; and

directing the air-wastewater mixture from an outlet end of the conduit of the IMAS and spraying the air-wastewater mixture over a solids collection area defined as an area between 5 and 150 meters from the outlet end of the conduit where the suspended solids in the wastewater fall out of the air-wastewater mixture onto the solids collection area.

8. A method of disseminating and disposing of leachate comprising: collecting the leachate which comprises an aqueous solution having suspended solids therein;

directing the leachate under pressure to an aerosolization system that includes a turbine; driving the turbine of the aerosolization system and generating a system of air that moves through a conduit associated with the aerosolization system;

pumping the leachate under pressure to a series of nozzles and aerosolizing the leachate into the path of the system of air passing through the conduit to form an air-leachate mixture; and

directing the air-leachate mixture from the aerosolization system and over a solids collection area and causing the solids in the leachate to fall out of the air-leachate mixture onto the solids collection area.

(Claims App'x, App. Br. 34–36.)

The Examiner rejected claims 1–19 as follows:

- I. Claims 1–3, 6–9, 15, 17, 18, and 19 under 35 U.S.C. § 102(b) as anticipated by Sandy (Final Act. 3–6);
- II. Claims 8, 9, 13, 15–18 under 35 U.S.C. § 102(b) as anticipated by Thakur (Final Act. 7–9);

- III. Claim 12 under 35 U.S.C. § 103(a) as obvious over Thakur (Final Act. 9–10);
- IV. Claims 4, 5, 10–14, and 16 under 35 U.S.C. § 103(a) as obvious over the combined teachings of Sandy and Hutchinson (Final Act. 10–12); and
- V. Claims 4, 10, 11, 13, 14, and 16 under 35 U.S.C. § 103(a) as obvious over the combined teachings of Sandy and Peterson (Final Act. 12–13).

Appellant relied on certain parts of the following (App. Br. 33):  
Decl. of Dr. William E. Houston dated January 25, 2016.

*Anticipation – Sandy*

ISSUE

Each of independent claims 1 and 8 involve utilizing a turbine to aerosolize wastewater having suspended solids (claim 1) or an aqueous solution having suspended solids (claim 8) and causing the solids to “fall out” on to a “solids collection area.” The Examiner’s position is that Sandy discloses a blower that functions in the same manner as the claimed invention of the ’792 Patent, and thus, the enhanced evaporation system (EES) in Sandy would inherently allow any solids contained in the mixture to concentrate and fall out of the mixture as required by the claims. (Final Act. 3–4; Ans. 4–5.) The Examiner stated that although Sandy discloses EES as a “core” technology to remove selenium, Sandy discloses that the treatment technology is configured as a system including tertiary treatments such that one of ordinary skill in the art would have recognized that Sandy

provides for the presence of suspended solids in the waste water sprayed by the mechanical sprayer. (Ans. 5.)

Appellant contends that Sandy describes an EES, the sole function of which is to evaporate water. (App. Br. 8.) According to Appellant, the EES disclosed in Sandy does not direct suspended solids to a designated solids collection area as recited in the claims. (App. Br. 8–9.) Appellant contends that Sandy discloses that EES is a “core” process, which is used to remove selenium from water, and that removing suspended solids would not be inherent to the EES, because the water treated in the process does not necessarily contain suspended solids. (App. Br. 9–10.) Appellant argues that while Sandy discloses additional treatments, such as “tertiary” treatments, which may be used to remove suspended solids, such a treatment is not required in all cases, and such an additional treatment does not establish that water including suspended solids is fed to the EES. (App. Br. 10–13.)

Thus, the principal issue with respect to this rejection is:

Does Sandy disclose aerosolizing leachate comprising an aqueous solution having suspended solids as recited in the claims?

#### FINDINGS OF FACT (“FF”)

1. Sandy discloses industry-specific approaches to prevent, control, and remove selenium from water. (P. V, Executive Summary.)
2. Sandy discloses that treatment technologies involving selenium removal typically “must be configured as a ‘system’ that

includes primary, tertiary, and residual treatment processes in addition to the core treatment technology process.” (P. VI.)

3. Sandy discloses that: “[t]ertiary treatment will generally be required to meet both the selenium and other conventional surface water discharge guidelines or criteria (e.g. dissolved oxygen, total suspended solids, biochemical oxygen demand, etc.).” (P. VI.)
4. Sandy discloses: “Particulates (usually measured as total suspended solids [TSS] or total solids) will plug or foul many treatment unit processes, thereby requiring removal.” (P. 4–4, Section 4.1.1.4.)
5. Sandy discloses an enhanced evaporation system (EES), which “increases the rate at which water evaporates by mechanically spraying water in the air using a blower.” (P. 4–22, Section 4.2.2.2.)
6. Sandy discloses with reference to the EES that “at some point as the TDS [total dissolved solids] concentration increases it will begin to reduce vapor pressure and limit the mechanical sprayer’s relative efficiency.” (P. 4–22, Section 4.2.2.2.)

#### ANALYSIS

Sandy does not expressly disclose that the EES is used to treat wastewater with suspended solids. That is, Sandy emphasizes that total suspended solids are removed prior to subjecting the water to the core technology used to remove the selenium, because such solids will plug or foul the treatment unit process. (FF1–FF4.) Sandy discusses total *dissolved*

*solids* with respect to the EES, and the consequences of the presence of such solids with respect to the effect on efficiency. (FF5–FF6.) Thus, the Examiner did not establish that EES necessarily would have utilized a wastewater with suspended solids. When inherency is a basis of anticipation, it “may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) (internal citation and quotation marks omitted).

To the extent that suspended solids are present during mechanical spraying in the EES, Sandy discloses that the process can result in suspended particle drift (see Sandy, pp. XII and 4-22). In view of such drift, the Examiner did not establish that any suspended solids present in the wastewater fell out in an area between 5 and 150 meters as required by claim 1 or fallout over “solids collection area,” rather than drifting beyond it. Again, anticipation cannot be established by probabilities. *Robertson*, 169 F.3d at 745.

Although the Examiner may be correct that the entire EES may be configured to include a tertiary technology to remove the suspended solids (Ans. 5), we are of the opinion that it is clear from Sandy that such a tertiary technology does not include the spray evaporator disclosed in Sandy, but rather, the removal of suspended solids is accomplished through filtration. Thus, Sandy does not disclose a method for aerosolizing leachate containing suspended solids, which further causes the solids to fall out over a solids collection area as recited in the claims.



Accordingly, we reverse the Examiner’s rejection of claims 1–3, 6–9, 15, 17, 18, and 19 as anticipated by Sandy.

*Anticipation-Thakur*

ISSUE

The Examiner found that Thakur discloses a method of treating leachate having suspended solids of a size to about 1 micron. (Final Act. 7.) The Examiner found that Thakur discloses an atomization arrangement that causes the leachate to be converted into a leachate mist, which according to the Examiner, provides for the “air-leachate” mixture or “air-wastewater” mixture of the claims. (Final Act. 7–8.) The Examiner found additionally that because Thakur discloses that the suspended particles concentration is measured at 45 meters from the atomizer arrangement, Thakur provides for a solids collection area that is less than 45 meters from the atomizer. (Final Act. 8.)

Appellant argues that Thakur discloses an atomizing process for evaporating leachate to form a leachate mist, where the leachate is filtered before being atomized. (App. Br. 14, citing Thakur, pp. 4, 7.) Accordingly, Appellant contends that Thakur discloses filtering solids to remove them from the leachate, rather than aerosolizing the solids as recited in the claims. (App. Br. 14–15.) Appellant argues that the particle sizes referred to in Thakur are particle sizes of the liquid or mist particles and not suspended solid particles. (App. Br. 15–16.) Appellant contends that the formation of ammonium salts disclosed in Thakur are not aerosolized suspended solids as recited in the claims because the ammonium salts are not suspended solids in

the leachate, but rather are formed downstream from the atomizer. (App. Br. 17.) Appellant argues further that the Examiner’s finding that particles of 0.7 to 1 micron in size meet the suspended solids recitation in the claims is in error because: there is no evidence to support the position that such particles are fed to the atomizers; suspended solids are larger than 2 microns; and particles of 1 micron or less are uncontrollable when airborne and cannot be directed to a designated solids collection area. (App. Br. 17–20.)

Appellant argues that any overlap between the term “aerosolizing” in the ’792 Patent and “atomizing” disclosed in Thakur has been disclaimed throughout the course of this reexamination proceeding as evidenced by the Houston Declaration, which is consistent with the ’792 Patent. (App. Br. 25.)

Accordingly, the issues presented for this rejection are:

Does Thakur disclose a leachate containing suspended solids as recited in the claims?

Does Thakur’s disclosure of “atomization” exclude the process of “aerosolizing” as recited in the claims?

Does Thakur disclose that suspended solids fall out of an air-wastewater mixture onto a “solids collection area” as recited in the claims?

#### FINDINGS OF FACT (“FF”)

7. Thakur discloses a process and apparatus for treatment and disposal of leachate and in particular removal of ammonia from leachate from waste material landfills, where leachates “usually contain high levels of contaminants such as ammonia,

biochemical oxygen demand (‘BOD’) and heavy metals and suspended solids.” (p. 1, ll. 5–6, 27–29.)

8. Thakur discloses a process including:
  - (i) filtering a raw leachate to produce a leachate filtrate, and (ii) atomising the leachate filtrate to produce a leachate mist; characterised in that the leachate mist thus produced has an average particle size of less than 20 microns in diameter and in that the leachate mist is substantially completely evaporated through exposure to atmospheric conditions.

(Thakur, p. 4, ll. 9–14.)
9. Thakur discloses that the process results in removal of ammonia from the raw leachate where when the liquid evaporates, the ammonium ions combine with anions in the leachate to form salts. (P. 4, ll. 21–23.)
10. Thakur discloses that the filtering step “reduces the size of any suspended solids remaining [in the leachate] to about 1 micron.” (P. 5, ll. 8–9.)
11. Thakur discloses, in one example, that as a result of the process, “total suspended particle concentrations measured 45 m from the atomiser arrangement were below levels recommended as safe by the National Health and WHO.” (P. 14, ll. 15–17.)
12. Thakur discloses that the discharge pressure of the nozzles is chosen based on the atmospheric conditions such that “the water content of the leachate is fully vaporised and dispersed.” (P. 11, ll. 7–10.)

## ANALYSIS

### *Leachate containing suspended solids*

We are not persuaded by Appellant’s argument that Thakur filters out all suspended solids prior to atomizing the leachate. Appellant points to evidence of record relating to the particle size required to be considered a “suspended solid” in the wastewater treatment field (App. Br. 17, Ex. 3 (<http://www.fondriest.com/environmental-measurements/parameters/water-quality/turbidity-total-suspended-solids-water-clarity>), p. 2 (“Total suspended solids (TSS) are particles that are larger than 2 microns found in the water column. Anything smaller than 2 microns (average filter size) is considered a dissolved solid.”).)

However, Thakur expressly discloses that there are suspended solids of a size of about 1 micron present after filtering has taken place. (FF 10.) Thakur expressly relates to the treatment and disposal of leachate. (FF 7–FF8.) The particle size of suspended solids in Thakur is also consistent with other evidence cited by the Examiner, namely, EP160.2, which relates to domestic and industrial wastes, and discloses filtering samples through glass filters including Millipore AP-40. (Ans. 6; EP 160.2, Secs. 1.1, 2.1, 3.1, 6.1; *see Stone, Suspended Solids: Unequal Results from Equal Methods*, p. 1, 3 (referencing EPA 160.2 and filters with pore sizes ranging from 0.7 to >10 microns).) Thus, we are not persuaded by Appellant’s argument that suspended solids must be at least 2 microns in size.

We are also not persuaded by Appellant’s argument that Thakur never discloses that suspended solids are fed to the atomizer. Thakur discloses that the leachate contains suspended solids of 1 micron and further measures

suspended particle concentrations at a distance of 45 meters from the atomizer. (FF 8, FF 10–FF 12.) Thus, it is clear that Thakur discloses leachate with suspended solids fed to the atomizer.

*“Atomizing” v. “Aerosolizing”*

There is much dispute over whether Appellant has disclaimed any overlap between the “aerosolizing” process recited in claims 8 and 15, and “atomizing” processes such as those disclosed in Thakur. Initially, we observe that the ’792 Patent does not set forth an express definition of an “aerosol” or “aerosolization.”

We agree with the Examiner that the relevant inquiry with respect to prosecution history disclaimer relates to the prosecution of the application leading to the ’792 Patent and not the current prosecution of this ex parte reexamination proceeding. (Ans. 9.) The Federal Circuit has indicated that the underlying prosecution history may be consulted, but that the Board is not necessarily bound by such history. *Tempo Lighting, Inc. v. Tivoli, LLC.*, 742 F.3d 973, 978 (Fed. Cir. 2014) (“This court also observes that the PTO is under no obligation to accept a claim construction proffered as a prosecution history disclaimer, which generally only binds the patent owner.”)<sup>1</sup>

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<sup>1</sup> Appellant’s contention that the current reexamination proceeding can be used to construe the claims, and in particular its reliance on *Krippelz v. Ford Motor Co.*, 667 F.3d 1261, 1266 (Fed. Cir. 2012) and *01 Communique Lab v. LogMein, Inc.*, 687 F.3d 1292, 1297 (Fed. Cir. 2012) is misplaced. (Reply Br. 5–6.) In *Krippelz*, the reexamination had been completed and a certificate had issued. *Krippelz*, 667 F.3d at 1264. Thus, the court in *Krippelz* did not consider statements in an ongoing reexamination

In the underlying prosecution leading to the '792 Patent, Appellant argued that “aerosolization” and “atomization” were two different processes. (“Response to Office Action” filed October 17, 2014 in Application 14/305,195 9–10.) In particular, Appellant argued that “atomization” requires “complex and specialized equipment” and “intentional, additional and specific filtering processes to reduce suspended solids to minute and somewhat uniform sized particles.” *Id.* at 9. Further, Appellant contended that “Atomization equipment also requires additional constant and high pressure at the point of discharge and Atomization’s final effectiveness is measured by complex and specific computer modeling to estimate final particle size, homogeneity and limited distribution area.” *Id.*

With respect to aerosolization, Appellant argued that “Aerosolization does not require specialized or complex equipment, additional and constant pressure at the point of discharge, additional filtration of specific temperatures.” *Id.* Appellant argued that the effectiveness of aerosolization is measured by mechanical machines for “increased chemical bonds,

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proceeding. *Krippelz*, 667 F.3d at 1267 (“Mr. Krippelz’s statements are of course *now* part of the intrinsic record.”) (emphasis added). Similarly, in *01 Communique Lab*, the reexamination had concluded, and in any case, the Federal Circuit determined that the District Court’s reliance on prosecution history disclaimer in the reexamination was incorrect. 687 F.3d at 1298–99. See also *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1298 (Fed. Cir. 2015) (“The PTO should also consult the patent’s prosecution history *in proceedings in which the patent has been brought back to the agency for a second review.*”) (emphasis added); *Marine Polymer Technologies, Inc. v. HemCon, Inc.*, 672 F.3d 1350, 1364 (Fed. Cir. 2012) (“If, in reexamination, an examiner determines that particular claims are invalid and need amendment to be allowable, one would expect an examiner to require amendment rather than accept argument alone.”).

increased oxidation levels, increased particle mass and weight over a defined but very large area.” *Id.* Appellant contended that “Aerosolization also allows particles of vastly different sizes at the point of discharge to fallout into a large area and to liberate water vapor from heavier and larger particles naturally.” *Id.*

Appellant concluded: “Atomization and aerosolization are opposite processes based on their: intentions, specific equipment, scientific principles, measurement equipment and criteria, operational use and purpose.” *Id.* at 10. Interestingly, although Appellant points out alleged differences between aerosolization and atomization, Appellant’s contentions fall short of setting forth an express definition for each of the processes.

In the Notice of Allowability for Application 14/305,195, the Examiner stated that the prior art did not teach the claimed process, without specifically distinguishing “aerosolization” from “atomization.” (App. Br. Ex. 1, p. 2, para. 3.)

In the current reexamination proceeding, with respect to “atomization,” Dr. Houston states that the definition of “atomization” is “to reduce a liquid to a fine spray” further referring to a dictionary definition that defines “atomize” as “To reduce (a liquid) to a spray” or “To spray (a liquid) in this form.” (Houston Decl. para. 11, Ex. 3, *The American Heritage Dictionary of the English Language*, p. 84.) Dr. Houston’s definition is not the same as the description of atomization during the ’792 Patent prosecution which involved reducing particles to a uniform size. *See supra.*

Dr. Houston stated that “Aerosolizing refers to the process of suspending particles in a moving stream of air or gas for the purpose of delivering the particles to a particular location,” which interpretation “is consistent with an ordinary meaning” and the ’792 Patent. (Houston Decl. para. 5.) Dr. Houston’s interpretation is consistent with other evidence of record, which indicate that aerosols are “tiny particles or droplets suspended in the air.” (Baron, Paul. *Generation and Behavior of Airborne Particles (Aerosols)*, App. Br., Ex. 4, p. 3.) The description of aerosolization during the ’792 Patent prosecution is not inconsistent with Dr. Houston’s definition in that the former refers to discharge of particles over a defined area. *See supra*.

Accordingly, the definition of aerosolization on this record, which expressly relies on the ordinary meaning, requires only that particles are suspended in a moving stream of air or gas, which delivers the suspended particles to a particular location. Such definition is also consistent with the description of aerosolization by Appellant during prosecution leading to the ’792 Patent.

We agree with the Examiner that in this reexamination, the terms “atomizing” and “aerosolizing” by themselves are not mutually exclusive and that the prosecution history does not support a definition that clearly distinguishes the two processes. (Ans. 9–10.) Specifically, while the ’792 prosecution history refers to atomization as reducing suspended solids to minute and somewhat uniform particles, as indicated by Dr. Houston, it also involves spraying or discharging such particles as does the aerosolizing process.



Thakur discloses that the pressure related to the discharge of the leachate filtrate through the nozzles is chosen to allow the water content of the leachate to be fully vaporized and dispersed. (FF 13.) Moreover, as discussed below, Thakur discloses that the particles are delivered to a solids collection area. Accordingly, we agree with the Examiner that Thakur discloses aerosolizing a leachate containing suspended solids as recited in the claims.

*Solids Collection Area*

We are also not persuaded by Appellant’s position that Thakur fails to disclose that the solids fall out of the air-leachate mixture onto the solids collection area in claim 8, and the 5 to 150 meter requirement reflected in claim 15. Thakur filters out suspended solids having a particle size above 1 micrometer and discloses that the amount of suspended solids at a distance of 45 meters is below the amount recommended amount by “the National Health and WHO.” (FF 10–FF 11.) Thus, the Examiner’s interpretation of Thakur that the suspended solids are collected in distances up to 45 meters from the atomizing apparatus is supported by the factual evidence (FF 11, FF 12). By performing this measurement, Thakur is expressly concerned with having the solids fall out within a certain distance from the atomizing apparatus and is expressly allowing for solids to fall out and collect at distances less than 45 meters, or “a solids collection area.”

Although Appellant has presented evidence that solids having particle sizes of 1 micron require 12 hours to settle 5 feet in still air (App. Br., Ex. 4, page 12) and that particles may drift through the air (Houston Decl. para. 8.),

such evidence does not outweigh the express disclosure in Thakur discussed above.

*Claim 18*

Regarding claim 18, which recites that the “method includes collecting the leachate produced by the landfill,” the “solids collection area includes at least a portion of the landfill,” and “wherein as the air-leachate mixture is directed over the landfill the suspended solids in the air-leachate mixture fall out of the mixture onto the landfill,” the Examiner found that Thakur discloses the presence of suspended solids at the landfill collection area. (Final Act. 9, citing Thakur, p. 14, ll. 15–17; Ans. 12, citing also Thakur, p. 1, ll. 31–32.)

Appellant argues that Thakur does not disclose a landfill recited in the claim. (App. Br. 25–26.) In this regard, Appellant argues further that in describing the management of leachate with respect to landfills, Thakur is describing how leachate had been treated in the past does not teach that the leachate atomized in Thakur is directed over a landfill. (Reply. Br. 7.)

We agree with the Examiner in this regard. Figure 1, described by Thakur as a preferred embodiment of the invention, expressly indicates that the leachate is directed “To Landfill.” (Figure 1.) We acknowledge that the description of Figure 1 does not expressly state that the atomizer is directed over the landfill. (P. 7, l. 3 – p. 8, l. 20.) However, we are of the view that Figure 1 itself along with the portions of Thakur cited by the Examiner clearly provides support for the Examiner’s finding that Thakur discloses directing the leachate over the landfill.

Accordingly, we affirm the Examiner’s rejection of claims 8, 9, 13, and 15–18 as anticipated by Thakur.

*Obviousness Rejections*

*Claim 12*

Claim 12 depends from claim 8 and further recites “maintaining the pressure of the leachate directed to the nozzles at 50–150 psi.”

The Examiner rejected claim 12 as obvious over Thakur. Specifically, the Examiner found that Thakur discloses pressures preferably ranging from 800 to 1200 psi and that Thakur discloses choosing pressures in view of atmospheric conditions such that the water content of the leachate is fully vaporized and dispersed. (Final Act. 10, citing Thakur, p. 11, ll. 7–10.) The Examiner determined that as a result of the variables disclosed in Thakur, it would have been obvious to optimize the pressure. (Final Act. 10.) The Examiner further stated that the claimed pressure has not been indicated to be critical in the ’792 Patent. (Ans. 13.)

Appellant contends that the Examiner does not find that the claimed pressure range is a recognized result effective variable for the claimed purpose. (App. Br. 27.) Specifically, according to Appellant, the purpose of the pressure in Thakur is to fully vaporize the leachate, whereas the claimed purpose is to aerosolize leachate and suspended solids and to deliver the suspended solids to the collection area. (App. Br. 27.) Appellant further contends that the difference in pressure ranges between Thakur and the claimed range is significant as reflective of the different purposes because “claim 12 uses low pressure to shoot the suspended solids through the air

and across a solids collection area and land the suspended solids in the solids collection area.” (App. Br. 27–28.) Appellant argues that “it is simply unknown whether the claimed method of delivering suspended solids to a solids collection area would result from optimizing the 800-1200 psi pressure of Thakur.” (App. Br. 28.)

We agree that the Examiner erred in concluding that it would have been obvious to adjust the pressure disclosed in Thakur to the range recited in claim 12. Thakur discloses a “high pressure pump” and further discloses a preferable range of 800–1200 psi. (Thakur, p. 10, ll. 4–13.) Thakur gives no indication that even though the pressure may be adjusted, that a much lower range of 50–150 psi would be contemplated by Thakur as satisfying the “high pressure discharge” disclosed therein. (Thakur, p. 11, ll. 4–14.)

Accordingly, the Examiner’s reasoning is not supported by sufficient rational underpinnings. Therefore we reverse the Examiner’s rejection of claim 12 as obvious over Thakur.

#### *Rejections IV and V*

Because Rejections IV and V rely on Sandy as the primary reference, and Hutchinson and Peterson fail to remedy the deficiencies of Sandy as discussed above, we reverse the Examiner’s decision to reject claims 4, 5, 10–14, and 16 as obvious under 35 U.S.C. § 103(a).

#### CONCLUSION

On this record, Appellant has failed to demonstrate any error in the Examiner’s factual findings that:

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Thakur discloses a leachate containing suspended solids as recited in the claims;

Thakur’s disclosure of “atomization” exclude the process of “aerosolizing” as recited in the claims; and

Thakur discloses that suspended solids fall out of an air-wastewater mixture onto a “solids collection area” as recited in the claims.

However, Appellant has demonstrated error in the Examiner’s factual findings and conclusions that:

Sandy disclose aerosolizing leachate comprising an aqueous solution having suspended solids therein as recited in the claims; and

The pressures recited in claim 12 would have been obvious over Thakur.

#### DECISION

The Examiner’s decision to reject claims 8, 9, 13, and 15–18 under 35 U.S.C. § 102(b) as anticipated by Thakur is affirmed.

The Examiner’s decision to reject claims 1–3, 6–9, 15, 17, 18, and 19 under 35 U.S.C. § 102(b) as anticipated by Sandy is reversed.

The Examiner’s decision to reject claims 4, 5, 10–14, and 16 under 35 U.S.C. § 103(a) is reversed.

Requests for extensions of time in this *ex parte* reexamination proceeding are governed by 37 C.F.R. § 1.550(c). *See* 37 C.F.R. § 41.50(f).

AFFIRMED-IN-PART

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